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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,471	11/03/2003	Jeong-Rok Kim	8733.934.00-US	1848
30827 7590 03/21/2007 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			EXAMINER CHUNG, DAVID Y	
			ART UNIT	PAPER NUMBER
			2871	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/698,471

Applicant(s)

KIM ET AL.

Examiner

David Y. Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-17 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :07 September 2006, 29 August 2006 and 14 August 2006.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Invention II in the reply filed on December 13, 2006 is acknowledged.

Claims 14 and 15 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on December 13, 2006.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (U.S. 6,573,972).**

Sasaki discloses a liquid crystal display having two seal patterns. Note in figure 8A, the primary seal pattern 13 and secondary seal pattern 12. See column 14, lines 25-41. Sasaki discloses forming the seal patterns by dispensing proper materials from

the nozzle of a dispenser. See column 14, lines 42-47. A dispensing method would have inherently required a table to support the substrate and a support over the table to which the dispenser is fixed.

Sasaki does not disclose a first printer for forming the first seal pattern and a second printer for forming the second seal pattern. Sasaki discloses that the seal pattern 13 is formed from epoxy-system thermosetting resin and that the seal pattern 12 is formed from an acrylic-system UV-curing resin. See column 14, lines 52-55.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide two different seal printers since the two seal patterns are made from different kinds of resin, and sequentially providing each type of resin to one seal printer would have been inefficient.

Sasaki does not disclose multiple sealant dispensers. However, it is well known that providing multiple dispensers for forming a single seal pattern was faster and more efficient than only providing a single dispenser. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention provide multiple dispensers because it was faster and more efficient.

**2. Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (U.S. 6,573,972) in view of Tamatani et al. (U.S. 5,893,625).**

Sasaki discloses a liquid crystal display having two seal patterns. Note in figure 8A, the primary seal pattern 13 and secondary seal pattern 12. See column 14, lines

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25-41. Sasaki discloses forming the seal patterns using a known screen-printing method. See column 14, lines 48-51.

Tamatani discloses that the known screen-printing method involves holding the substrate under a screen plate comprising a mask and rubbing the substrate over the mask with a roller having the sealant applied to it. See column 1, lines 51-59. It would have been obvious to one of ordinary skill in the art at the time of invention to use this method since it was known to be reliable and cost-effective.


Sasaki does not disclose a first printer for forming the first seal pattern and a second printer for forming the second seal pattern. Sasaki discloses that the seal pattern 13 is formed from epoxy-system thermosetting resin and that the seal pattern 12 is formed from an acrylic-system UV-curing resin. See column 14, lines 52-55.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide two different seal printers since the two seal patterns are made from different kinds of resin, and sequentially providing each type of resin to one seal printer would have been inefficient.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Y. Chung whose telephone number is (571) 272-2288. The examiner can normally be reached Monday thru Friday from 8:30 am to 5:00 pm. If successive attempts to contact the examiner are unsuccessful, the examiner's supervisor David C. Nelms can be reached at (571) 272-1787.

  
David Nelms  
Supervisory Patent Examiner  
Technology Center 2800